

ABSTRACT OF THE DISCLOSURE

[0082] A microencapsulation apparatus is provided which is configured to form co-axial multi-lamellar microcapsules from materials discharged from first and second microsphere dispensers of the apparatus. A method of fabricating and processing microcapsules is also provided which includes forming distinct droplets comprising one or more materials and introducing the droplets directly into a solution bath to form a membrane around the droplets such that a plurality of microcapsules are formed. A microencapsulation system is provided which includes a microcapsule production unit, a fluidized passage for washing and harvesting microcapsules dispensed from the microcapsule production unit and a flow sensor for sizing and counting the microcapsules. In some embodiments, the microencapsulation system may further include a controller configured to simultaneously operate the microcapsule production unit, fluidized passage and flow sensor to process the microcapsules in a continuous manner.